



THE CURRENTS OF OUR TIME

CARL MALAMUD

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Our verse for the day is from Thomas Jefferson's Notes on the State of Virginia. He said:

In matters of style, swim with the current; In matters of principle, stand like a rock.

I'd like to talk with you today about the operation of our federal government, about how if our government is to do the jobs with which we have entrusted it—if government is to ensure that the air we breathe and the water we drink are safe, or that every child is to be given a chance to flourish—if we are to accomplish these goals, the machinery of our government must be made to work properly.

At the Constitutional Convention, Ben Franklin stated his belief that public servants should not be paid a salary, for in paying the civil service, our government would not be made of “the wise and the moderate ... the men fittest for the trust” but instead by “the bold and the violent, the men of strong passions ... in their selfish pursuits.”

Salaries were a slippery slope that would invariably lead to capture and corruption. Ben lost the salary fight and federal employees were paid, but his worries about the corrupting influence of private gain on public operations came true.

In 1828, when General Jackson stormed the gates and took the White House, public service became a service of spoils for the victor, radical change in the workforce with every election. Cabinet secretaries and presidents spent their days and nights meeting with a river of job seekers, and their congressional patrons.

With the Civil War, then reconstruction, government grew. The railroads caused a blizzard of paper for the

General Land Office. The Pension Office filled with appeals from the Grand Army of the Republic. Government workers were always new on the job and often not on the job, and they became famous for their red tape.

8 Meanwhile, there were rumblings of reform. At first, in 1868, this was a lone voice in Congress, Thomas Jenckes of Rhode Island, a patent lawyer who had experienced firsthand the ineptness of the bureaucracy.

9 Over the years, the clarion calls for reform sounded ever-louder, but the system did not change. Then, the unthinkable happened. President James Garfield was shot, just four months after taking office, by a disgruntled office seeker. The nation watched in horror as he lay in agony for 11 weeks dying.

10 In tribute to the fallen President—and faced with a tidal wave of public outrage—Congress passed the Civil Service Act of 1883.

11 A Civil Service Commission of 3 members—including a young Teddy Roosevelt—conducted a government-wide review, turning the federal workforce into a merit-based system, requiring open competitive examinations as the basis for employment.

12 The Civil Service Act was a reformation in the machinery of government, and that change in turn made possible the great progressive era that began with the turn of the century. When government began to work properly, only then could we face the brazen challenges of the trusts, the shocking labor conditions, the deteriorating food supply.

13 Today, while we are faced with wars and terrorism, with a
brutal economic climate and a renegade financial industry,
with a global environmental crisis, the need for our
government to function properly is all the more pressing.

14 Today, we have our own reform, an open government
movement. There have been some notable successes. The
open government directive has led to agency-wide plans
coordinated by Beth Noveck in the White House, CIO Vivek
Kundra has started reviews of major IT projects. We're
going to hear from both of them at this conference, and it is
worth listening closely to what they say. But we need more.

15 Our federal government spends \$81.9 billion a year on
Information Technology. Much of that is wasted effort. We
build systems so badly, it is crippling the infrastructure of
government.

16 Let me give you an example of an agency I'm familiar
with, the National Archives and Records Administration. Let
me start by saying I really like this agency.

17 When NARA redid the Federal Register, they didn't stop
with bulk XML data, they released the entire UI as open
source—and it is based on the work of 3 volunteers at
GovPulse.US, who whipped this up because they wanted
something for the Apps for America contest. I mean, how
cool is that? This is the best opengov story I've seen in a
decade.

18 I also worked closely with the new Archivist, David
Ferriero, and his staff, and they've been totally supportive
of the FedFlix program, which now has 3,900 government

videos on-line. FedFlix has tallied more views than all 13 of the Smithsonian Institution channels combined.

19 Last December, Congress asked me to testify about the Electronic Records Archives system NARA has been trying to build for a decade.

20 ERA is meant to hold in perpetuity the archived electronic records of the federal government, and this is surely the main challenge NARA faces for the future, it is the very core of their mission.

21 We've spent over \$250 million dollars so far on ERA, the lifetime cost is supposedly \$500 million, and I'd bet the render farm that this boondoggle comes in at a cool billion.

22 The Inspector General testified he had no idea what the system did or how much it costs. GAO issued reports saying they couldn't figure it out either.

23 Best as I can tell our \$250 million bought a 100-terabyte system and a couple small servers to do the ingest.

24 Keep in mind this is an archiving system. Turns out there is no backup or offsite replication in the current design.

25 There's no public access to speak of built into the ERA design. As far as the Internet is concerned, the system is basically write-only memory.

26 For \$250 million, we also got a bunch of T3 lines they can't get to work. So, when the ingest center gets their records from the 4 test agencies, they periodically unrack the ingest server, throw it in a van with a rent-a-cop and drive to Greenbelt, where Lockheed Martin does their "post-ingest processing," and then they drive to West

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Virginia and load up ERA, then back to the ingest facility. They measure throughput in bits per gallon.

27 This system is all custom, proprietary code, so a state archive can't download the package and run it themselves.

28 This is so broken that to negotiate the 3,000 page contract, NARA had to hire an outside law firm.

29 This is so broken that Lockheed Martin went and got itself 19 patents on work the government paid for, and the government probably doesn't have rights to those patents.

30 These are just a few highlights of ERA. I could go on. The good news is the new Archivist gets it, and Vivek Kundra put the project on his watch list.

31 I'd urge you to spend a bit of time on Vivek's IT dashboard and you'll see that NARA is not an anomaly, it is a reflection of best current practices. This is how it is done in Washington today.

32 There's the FBI's Sentinel system, a \$451 million fiasco that quite simply didn't work, and now the FBI is saying it might cost an additional billion. Meanwhile, the FBI remains hobbled.

33 There's the FAA's NextGen system which Transportation's IG has said "puts billions of taxpayer dollars at risk." While NextGen treads water in an ever-mounting sea of money, our air traffic control system remains distinctly last-gen.

34 There's Homeland Security with \$6.5 billion in 2010 IT spending, Commerce with \$6.6 billion, the list goes on.

35 And this isn't all about money, this is about clue, about attitude.

36

Take the IRS. They make nonprofit tax returns available only on DVDs. They don't scan the tax returns into PDF files, they put each page in a separate TIFF file, so each month you get a dozen DVDs with a million TIFF files.

37

Here's the kicker. If you look in these nonprofit returns, you'll see a whole boatload of Social Security numbers of schoolchildren. A CIO at Treasury told me he thinks they're prohibited by law from redacting those numbers as that would be altering a government document.

38 What does it take to fix something this broken?

39 For inspiration, look to the progressive era, a time that began with the reigning in of the railroads and continued with Teddy Roosevelt's trust busting, with Louis Brandeis, the people's lawyer, reforming a life insurance system that was no less than "legalized robbery."

40 This was when basic protections for worker safety came into place, when child labor was regarded as immoral, and then illegal, when public safety codes became law.

41 It was a time when government became a platform to create new industries like aviation, but also a time to reform industries that had run amok, such as food and drugs.

42 Take aviation. After World War I, there was no industry, just gypsy fliers and barnstormers. Then, businesses started to use the air.

43 First out of the gate was skywriting, then aerial photography, but the first killer app was the U.S. Department of Agriculture, which invented the profession of crop dusting.

44 Then—though there was no economic justification for it—the Post Office created an airmail service. They flew their own planes, and then they stopped flying and said they would contract with commercial carriers—which didn't exist yet.

45 Henry Ford, Marshall Field, Phillip K. Wrigley all started to invest in aviation. A new Aviation Bureau began plotting airways, installing light beacons, licensing pilots. Soon

people joined the mail on the planes and civil aviation bloomed. Government had created a new platform.

46 Another example of fundamental change is ensuring the safety of food and drugs. By the late nineteenth century, the American food supply was the worst in the world's history, dominated by unscrupulous trusts and fly-by-night factories.

47 Abraham Lincoln saw this coming when he said "Corporations have been enthroned ... An era of corruption in high places will follow." He was right.

48 The field of medicine was dominated by patent medicines, secret brews with dubious claims, and ingredients such as opium and mercury.

49 These toadstool millionaires were the biggest advertisers in newspapers, ensuring there would be no articles critical of their practices in the mainstream media.

50 In 1883, Harvey Wiley became the Agriculture Department's chief chemist. He and his small staff started by exposing widespread cheating in the honey industry, where many foisted off low-grade glucose with ground up dead bees for color.

51 Dr. Wiley and his agricultural chemists kept investigating, exposing the use of formaldehyde and borax as preservatives, and the shocking lack of nutrition in swill milk.

52 In this time, Congress would have nothing of reform. Corporations were their partners, citizens had no standing.

53 This was capture, "mere selfish scramble for plunder."

54 Then Harvey Wiley was joined by a small group of writers who picked up their muck-rakes. When Upton

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Sinclair came out with the Jungle, and the Ladies Home Journal exposed the patent medicines in lurid detail, the public reached a tipping point.

55 It was the muckrakers and the bureaucrats who laid the groundwork that gave Teddy Roosevelt a plan of action, a plan that became the Food and Drug Act of 1906.

56 Leadership starts at the bottom, small groups can turn many small facts into one big truth. Dr. Wiley prepared for 20 years until his time came to create the FDA and we began an ongoing commitment to make sure our foods will be edible and our medicines will not kill.

57 For those of us here in this room, we who work at the
intersection of technology and government, how should we
define the change that we seek? There are three steps we
can take if we are serious about government as platform,
and the first is to finish the opengov revolution.

58 There is so much left to do. We need bulk data
standards and we need to enforce them. We also need
much more data.

59 There is no excuse for the IRS to be selling dirty DVDs.
There is no excuse for the Patent Office not to have all their
data on their own Internet server as part of their
constitutionally mandated mission to promote the progress
of science.

60 We need to update our FOIA laws and give them
Internet-age teeth. When we release something on FOIA, it
should be published, not just go to the requester.

61 Finishing the opengov revolution is just step one. Our
government is the caretaker for vast stores of information
in our national libraries, archives, research laboratories,
and museums. These stores lie fallow today, but they could
become a platform that provides access to knowledge for
all.

62 Prior efforts at digitization have been halfhearted. We
should be spending a minimum of \$250 million per year
for a decade on a national scanning initiative.

63 If we can put a man on the moon, surely we can launch
the Library of Congress into cyberspace.

64 The Smithsonian, the National Archives, the Library of
Congress, the National Library of Medicine, the

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Government Printing Office must all work together to develop a strategy compelling enough to make Congress, the foundations, and the public all clamor to help them create this new platform.

If a national scanning initiative is to have teeth, we also need to make clear that works of the federal government have no copyright. The Smithsonian Institution still asserts copyright over their holdings.

Taxpayers give the Smithsonian \$750 million per year and the best location on the planet, for which we deserve no less than that our nation's attic be open for all to use.

After finishing opengov and starting to scan, the third thing we need is an open systems revolution. We must reboot how we build computer systems. This has to be an all-hands-on-deck open-systems moment, the kind of thing we saw with the Civil Service Commission.

All hands on deck is also how we reversed the capture of the FDA by Big Pharma in the 1950s, when drugs were getting approved by default. There was great harm in these drug cocktails, and it all blew up with the discovery of the grotesque effects of Thalidomide on babies.

In 1962, the great Estes Kefauver seized the moment and got his landmark amendments passed. He flipped the bit, so drugs had to be proved safe instead of proved unsafe. But there was an installed base problem. There were over 4,000 drugs already on the market.

The FDA commissioner borrowed 10 young doctors from the Surgeon General, he got the National Academies to provide a home, and he drafted 180 of the best doctors

and scientists in the country, and they reviewed every one of those drugs.

71 Three years later, when the Great Drug Review was done, seven percent of the pharmacopeia was pulled, and a full 50 percent of the drugs were relabeled with vastly reduced claims and many more warnings.

72 Stemming today's IT torrent needs the same approach, a Computer Commission with the kind of authority the Civil Service Commission had to conduct agency-by-agency reviews and help us reboot .gov, flipping the bit from a reliance on over-designed custom systems to one based on open-source building blocks, judicious use of commercial off-the-shelf-components, and much tighter control of the beltway bandits.

73 The President should call in the federal tech staff and tell them what Lyndon Johnson told the FDA regulators when he got in their face and said "let the venal and the self-seeking and the tawdry and the tainted fear to enter your building."

74 Washington is in a state of gridlock, and capture by special
interests is old news. One can call this a crisis of
leadership, and there are certainly real issues of
leadership our government must face.

75 But we should never forget that leadership only happens
when we as a community put a real solution on the table, a
better way of doing things that gives our leaders the
courage to work on things that matter, to become the risk-
takers and doers, to make the change that we all seek.

76 Woodrow Wilson said that “the great government we
loved has too often been made use of for private and
selfish purposes, and those who used it had forgotten the
people.” Wilson called on us to build a government “where
justice and mercy are reconciled and the judge and the
brother are one.”

77 We can build that better government, we can plow new
fields from the vast wasteland of contracts that lie fallow
inside this beltway.

78 Harvey Wiley toiled for decades until his time came, he
anchored to the deepest rock of principle and practiced his
craft, until he was able to swim with the currents of his time.
A few dedicated people working on things that matter can
move something even so massive as the ship of state.

79 If we believe we can make government more efficient,
more effective, more just, we must practice our craft until
we can swim with the currents of our time, for if we remain
anchored to the deepest rock of principle, then we will see
“justice roll down like waters and righteousness like an
ever flowing stream.”

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LYNDON B. JOHNSON